CprE 491 WEEKLY REPORT 01

9/12 - 9/19

Group number: 8

Project title: Race of Doom

Client &/Advisor: Dr Bigelow

Team Members/Role: Alex Crandall, Wesley Jansen, Elizabeth Schmitt, Ben Towle, Lalitha

Vattyam

Weekly Summary

This week our main objective was getting a hold of the cars and code from last year's code. We got a locker in the Senior Design room with the rc car. Alex was able to see the connections and wiring of the car with the sensors, and he is starting to get an understanding of how it is all connected. We found the code and discovered that it was written in C++. We have to plan to all get together and explore the code more in the future. We also brain stormed what kind of obstacles and course we want to have for the race.

• Past week accomplishments

- Team Member 1: Alex Crandall: Worked on meeting to see vehicles, looked at vehicles and hardware we have available and started digesting how to do the hardware and where we want to go with the car and track.
- Team Member 2: Wesley Jansen: Worked on meeting to see vehicles, found vehicles, storyboarded ideas, added ideas to document and collaborated with team sharing ideas. Thought about ideas for our track and contacted previous group member to ask questions we have.
- Team Member 3: Elizabeth Schmitt: Worked on meeting to see vehicles, looked at software, storyboarded ideas, added ideas to document and collaborated with team sharing ideas.
- Team Member 4: Benjamin Towle: Worked on meeting to see vehicles, gathered code from Dr. Bigelow. We could not find last years code so we had to ask Dr. Bigelow for help getting access to previous code and what they did to try to complete project. Also looked at the past years project and how it turned out so we can see where improvements are and build on it.

• Team Member 5: Lalith Vattyam: Worked on meeting to see vehicles, took the lead on project management and helped guide the team on where we should want to go next. Storyboarded ideas and collaborated with the team.

Pending issues

This week we had some trouble initially finding the code. Once found, we realized that is has quite a bit of material. We will need to look at it a lot more to understand it. We also need to learn more about how the hardware works and how to make it run

Individual contributions

NAME	<u>Individual</u> <u>Contributions</u> (Quick list of contributions. This should be short.)	Hours this week	HOURS cumulative
Alex Crandall	Observed the pre-existing vehicles to get an idea of what we are working with.	6	6
Wesley Jansen	Storyboarded ideas and found the vehicles. Looked at code and car plans.	6	6
Elizabeth Schmitt	Brainstormed race course ideas. Looked over code. Found vehicles.	6	6
Ben Towle	Facilitated us getting access to previous teams' repositories. Brainstormed ideas for racecourse and race objectives	6	6
	Organized meeting dates and times, and set goals for the group to stay on a collective task	6	6

^{*}Starting cumulative hours count on weekly report #1

• Plans for the upcoming week

- Alex Crandall Planning to research existing microcontrollers to allow for an additional understanding and observe how the connections align with them to avoid any shorting
- Wesley figure out code a bit more, try to start car we have. Meet Dr. Bigelow to set expectations. Figure out how the cars will be.
- Elizabeth Meet with Dr. Bigelow and talk with him about ideas for obstacles and the course for the race. Try to get a better understanding of the code.
- Ben Co-ordinate team meetings with Dr. Bigelow along with using prior coding knowledge to obtain a better understanding of the provided C++ code
- Lalith Plan out meeting dates for the upcoming week along with creating a timeline of 2 week sprints to keep the group on task for the upcoming challenges in this semester.

• Summary of weekly advisor meeting

We meet with our advisor every other week. During our first meeting with our advisor, we were able to get an understanding of our project. He let us know that there is a certain level of sovereignty when it came to the project task and idea. We were deciding between a race track or an objectives race and ended up taking a group vote for a race track. Our advisor also guided us to the ETG and played a critical role in getting us the code and cars from prior years for us to be able to work on a base. Our advisor (Timothy Bigelow) also gave us the idea of having two similar cars with similar components and base code where the autonomous steering would differentiate between the two teams. One of our main questions was how the teams would work, and he told us to split into two groups of two while Alex, being the only EE major in the group, would oversee the track and assembly of the different obstacles along with the hardware of the RC cars.

Grading criteria

Each weekly report is worth 10 points. Scores will be awarded as follows:

- **8 10**: Progress for your project seems to be suitable. Documentation and hours reported by team members are adequate.
- 6 8: There is scope of improvement both in your report and your project progress. Can consult with instructor/TA after class for further inputs.
- < 6: Please talk to instructors/TA after class hours about any difficulties that you/your team is facing.

Each weekly report should be unique in that they have a unique set of supporting details for your contributions. So please do not just copy your reports from the previous week. In addition, please avoid any personal pronouns (he, she, I, you). Try to keep your reports as neat as possible.